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THE
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THE OFFICE OF MYCOLOGY AND DISEASE SURVEY

Supplement 73

Diseases of Forest and Shade Trees, Ornamental and Miscellaneous

Plants in the United States in 1928

December 30, 1929



BUREAU OF
PLANT INDUSTRY

UNITED STATES DEPARTMENT OF AGRICULTURE

DISEASES OF FOREST AND SHADE TREES, ORNAMENTAL AND MISCELLANEOUS PLANTSIN THE UNITED STATES IN 1928

Plant Disease Reporter
Supplement 75

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CONTENTS

Foreword	366
Diseases of conifers	367
Diseases of hardwoods	371
Diseases of ornamentals	377
Diseases of miscellaneous hosts	394
Recent literature	395

FOREWORD

This summary of the diseases of forest and shade trees, ornamental and miscellaneous plants in the United States in 1928 follows the same general plan as those of the preceding years. The sources upon which the information is based are as follows: (1) collaborators, (2) specialists in the Office of Forest Pathology, (3) articles in botanical journals, and (4) special reporters.

Many reports of new occurrences were received for 1928 both for individual states and for the United States. In the accompanying summary these first occurrences have been noted by symbols before each individual report. Many occurrences are given which have been obtained from literature from the Mycological herbarium of the Bureau of Plant Industry, or from past records of the Plant Disease Survey. Many diseases have been omitted due to their unimportance or to the fact that they have been reported in other years. It is not the object of this summary to enumerate all of the diseases that have been reported during the year, but to give facts concerning only some of the more important ones. "Standardized Plant Names" has been used as the source for the names of the hosts.

Where specimens are not indicated, the report is based on the authority of the person cited. The date given is that of its earliest reported appearance in 1928. Reports of diseases from British Columbia are given because of their possible occurrence also in Washington and Idaho.

The following symbols are used: * indicates a specimen in the Mycological herbarium; + preceding disease indicates the first report of the disease to the Plant Disease Survey; + preceding state indicates the first report from the state to the Plant Disease Survey; P.r. indicates prior reports of the disease to the Plant Disease Survey or from the Mycological herbarium.

References have been given and in some instances brief abstracts made of recent articles which may be of service to those who do not have access to all botanical journals.

DISEASES OF CONIFERS

ABIES SP.

Fusarium sp., graft canker.

+New Jersey - Cumberland County, May 29. (White)

+*Lophodermium abietis* Rostr., needle cast.

Western United States - on *A. amabilis*, *A. concolor*, *A. grandis*.
(Boyce, 1)

ABIES BALSAMEA, balsam fir.

Polyporus balsameus Pk., brown butt rot.

+Wisconsin - Garrett Bay, 1923 and 1924. (Hubert)

Minnesota - Grand Marais, 1923 and 1924. (Hubert)

A common butt rot resulting in rapid decay of the lower trunk and causing severe windfall.

ABIES GRANDIS, great silver fir.

+*Polyporus erubescens* Fr., bark rot.

Idaho - found on stumps, attacking bark and slight attack on sapwood;
Moscow, 1926. (Hubert)

+*Scleroderris bacillifera* (Karst.) Sacc., canker.

Oregon - many cankers on the trees in one locality of Tillamook County.
(Zeller)

CUPRESSUS SPP., cypress.

+*Coryneum* sp., coryneum canker.

California - on *C. macrocarpa* and *C. sempervirens*; found in Alameda, Santa Clara, and San Mateo Counties, also reported from Sacramento County. Seemingly has been present in certain localities for four or five years; origin unknown. (Wagener, 21)

JUNIPERUS PROCUMBENS

Phomopsis juniperovora G. G. Hahn, nursery blight.

+Maryland - Rockville, September 22. (Martin)

+*Pitya cupressi* (Batsch) Rehm.

District of Columbia - October 20. (Martin)

Maryland - Rockville, October 26. (Martin)

Plant Disease Reporter 12: 139. 1928.

PICEA SPP., spruce.

+*Fusarium* sp., graft canker.

New Jersey - 90 per cent loss in all spruce grafts; local; Cumberland County, March 30. (White)

+*Melampsoropsis cassandrae* (Pk. & Clint.) Arth., rust.

Wisconsin - occasionally found on blue spruce when located near bogs;
Milwaukee, July 25. (Vaughan)

+*Phacidium infestans* Karst.

Northeastern United States - (Faull, 7).

Phomopsis occulta Bubak.

+Rhode Island - (Waterman)

PICEA ENGELMANNI, Engelmann spruce.

+Fomes annosus Fr., spongy sap rot.

Idaho - caused serious root and butt rot in living trees; Coeur d'Alene, 1927. (Hubert)

+Phomopsis occulta Bubak, blight.

New Jersey - Passaic, July 9. (White)

PICEA PUNGENS, Colorado spruce.

+Melampsoropsis cassandrae (Pk. & Clint.) Arth., leaf blister rust.

Wisconsin - (Waterman)

+Phomopsis occulta Bubak, blight.

New Jersey - (Waterman)

PICEA PUNGENS KOSTERI, Koster blue spruce.

+Phomopsis occulta Bubak, blight.

New Jersey - Mercer County, July 3. (White)

PINUS FLEXILIS, limber pine.

Hypodermella sulcigena (Link.) Tub., needle cast.

**Montana - Gallatin County, August 5. (Young)

PINUS MONTANA MUGHUS, mugho pine.

+Sphaeropsis sp., leaf cast.

New Jersey - Monmouth County, October 16. (White)

PINUS MONTICOLA, western white pine.

Cronartium ribicola Fisch., blister rust.

The following report has been received from Dr. J. F. Martin, Office of Blister Rust Control. See map. Figure 17.

Scouting during 1929 has shown that the area infected with white pine blister rust in the United States has been increased as a result of the natural advance of the disease into new territory. The accompanying map shows the extent of the infected area in the West at the end of 1928.

This year infection on Ribes, which apparently is blister rust, was found in Curry County, Oregon, at two points about 7 and 15 miles respectively south of Port Orford. This represents a substantial extension in the southward spread of the disease on the Coast being less than 50 miles from the Oregon-California line.

Another important factor in the Western blister rust control situation was the finding of the rust for the first time firmly established on western white pine in four localities in Idaho. In this region of valuable forests, host plant associations are exceptionally favorable for rapid spread of the disease and severe damage to pine, unless effective control is applied promptly.

Two of the pine infection centers were discovered in the vicinity of Elk River, Clearwater County, one at the junction of Elk and Deep Creeks where five infected trees with five cankers of 1923 and 1927 origin were found, the other at the junction of Long Meadow and Three Bear Creeks where an extensive infection area was located comprising 60 acres of white pine with approximately 5 per cent of the trees infected. Here there were apparently three waves of infection which occurred in 1923, 1926 and 1927, respectively.

A third center of pine infection was found in Clearwater County 1-3/4 miles south of Headquarters, Idaho, on the North Fork of Reed's Creek. Fifteen infected trees with 23 cankers of 1927 origin were located. All infected trees and those nearby were destroyed on September 13. The Ribes in this vicinity were eradicated by the application of chemicals during the 1929 field season.

The fourth center of infection was discovered in Sections 8 and 11, T. 42 N., R. 2 E., on the Middle Fork of the St. Maries River in the Clarkia region, Shoshone County. In Section 8, 10 infected trees were found with 10 cankers, one of 1923 origin, and 9 of 1927 vintage. In Section 11, 30 infected trees were located with cankers which originated in 1927.

Diseased Ribes were found in the vicinity of all pine infection centers with the exception of the one near Headquarters where the bushes had been eradicated. In addition, Ribes infection was discovered at 6 points distributed over Clearwater County, and at two points in Latah County in the vicinity of Bovill, Idaho. In Montana one infected bush of *R. petiolare* was located in Mineral County on Upper Randolph Creek about 9 miles airline from the Savanac Nursery at Haugen. The bush was uprooted and all infected leaves were destroyed by burial in the soil.

In the Eastern infected states the disease is constantly increasing in amount and spreading locally in white pine areas which have not yet been protected by the application of control measures. The outstanding features with respect to the spread of the disease in the East was the discovery of the rust on white pines in the Upper Peninsula of Michigan, and in several additional counties in Pennsylvania. Also it was apparently located on cultivated black currants at two points in the State of Iowa. In certain sections of the Upper Peninsula the disease was well distributed on cultivated black currants and wild Ribes. In Pennsylvania blister rust infection was known to occur on white pine prior to 1929 in the following ten counties: Berks, Cambria, Montgomery, Clarion, Potter, Susquehanna, Cameron, Clinton, Lycoming and Wayne. During the past season it was found on white pine in 17 additional counties. This makes a total of 27 counties with pine infection out of the 67 in the State.

+*Pomes nigrolimitatus* (Rom.) Weir, white pocket rot.

Idaho - Coeur d'Alene, Harvard, and Priest River. 1927. (Hubert)

PINUS MURRAYANA, Lodgepole pine.

Lophodermium pinastri (Schrad.) Chev., needle cast.

Ohio - almost total defoliation of this host at state experiment station arboretum; disease noted past two years, defoliation increasing since then; Himalayan pine adjoining not infected. (May, Pl. Dis. Reporter 12: 56. 1928).

P.r. *Colorado

PINUS NIGRA, Austrian pine.

Cronartium comptoniae Arth., sweet fern rust.

+New Jersey - Mercer County, May 25. (White)

Sphaeropsis sp., leaf cast.

+New Jersey - Monmouth County, October 10. (White)

+*Sphaeropsis ellisii* Sacc.

Pennsylvania - (Waterman)

PINUS PARVIFLORA, Japanese white pine.

+*Lophodermium pinastri* (Schrad.) Chev., needle cast.

New Jersey - Monmouth County, August 16. (White)

PINUS PONDEROSA, western yellow pine.

Armillaria mellea (Vahl) Quel., root rot.

+Idaho - in living trees; Coeur d'Alene, Pierce, and Priest River.
(Hubert)

+Washington - groups of trees infected, some dying; Northport, 1927.
(Hubert)

Cronartium harknessii (Moore) E. P. Meinecke, rust.

+Montana - Carter County, August 1. (Young)

**Polyporus anceps* Pk., red ray rot.

Idaho - Boise, Harvard, Santa, and Winchester, 1927.

Washington - Northport, 1927.

Causing considerable cull in the heartwood of tops of living trees and developing rapidly on cull logs, tops, and stumps.
(Hubert)

PINUS RESINOSA, red pine.

Coleosporium solidaginis (Schw.) Thuem., needle rust.

+New Jersey - Bergen County, July 3. (White)

PINUS STROBUS, white pine.

Cronartium ribicola Fisch., blister rust.

(See *Pinus monticola*)

PINUS SYLVESTRIS, Scotch pine.

Cytospora pinastri Fr., needle blight.

New Jersey - Bergen County, June 12. (White)

+*Lophodermium pinastri* (Schrad.) Chev., needle cast.

New Jersey - Monmouth, October 16. (White)

+*Sphaeropsis ellisii* Sacc.

New York - (Waterman)

PSEUDOTSUGA DOUGLASII, Douglas fir.

+*Dasycephypha calycina* (Schum.) Fekl., European larch canker.

Rhode Island - (Martin, J. F. Pl. Dis. Reporter 12: 9. 1928).

+*Polyporus circinatus* Fr., white pocket rot.

Idaho - Coeur d'Alene, 1927. (Hubert)

+*Polyporus leucospongia* Oke. & Hark., sap rot.

Idaho - Avery, 1927. (Hubert)

RETINOSPORA SQUARROSA, retinospora.

+*Phomopsis juniperovora* G. G. Hahn, nursery blight.

New Jersey - Union County, July 16. (White)

THUJA SP., arborvitae.

Phomopsis juniperovora G. G. Hahn., nursery blight.

+Virginia - Onley, July 13. (Pl. Dis. Reporter 12: 113. 1928).

+*Phymatotrichum omnivorum* (Shear) Dug., root rot.

Texas - severe on both nursery and home plantings; 10 per cent loss;
Hidalgo County. (Bach)

D I S E A S E S O F H A R D W O O D

ACER SPP., maple.

- +*Colletotrichum., leaf blight.

North Carolina - Albermarle, October 23. (Martin)

Gloeosporium sp., leaf blight.

- +*North Carolina - Albermarle, September. (Forest Pathology)

Gloeosporium apocryptum Ell. & Ev., leaf blight.

- +Massachusetts - more than usually severe throughout the state, July 11. (Osmun)

Phyllosticta minima (Berk. & Curt.) Ell. & Ev., leaf spot.

- +Colorado - very abundant. (LeClerc)

Rhytisma acerinum (Pers.) Fr., tar-spot.

- Maine - (Waterman)

ACER DASYCARPUM PYRAMIDALE

- +*Kabatiella polyspora (Bub. & Syd.) Karak.

Virginia - Winchester. Collected by Haskell, Schneiderhan, and Archer; isolated by Leonian; determined by G. Hamilton Martin.

ACER PALMATUM, Japanese maple.

Nectria cinnabarina Fr., canker

- +New Jersey - Atlantic County, September 20. (White)

- +*Phomopsis sp.

Pennsylvania - (Waterman)

Virginia - Falls Church, September. Collected and determined by G. Hamilton Martin.

ACER PALMATUM RUBRUM, Japanese red maple.

Verticillium sp., wilt.

- +New York - Nassau County. (Welch)

ACER PLATANOIDES, Norway maple.

- +*Pestalozzia sp., leaf spot.

New Jersey - Ocean County, October 7. (White)

Verticillium albo-atrum Reinke & Berth., wilt.

- +Oregon - three-year nursery stock planted on land in potatoes three years before, now has about a 50 per cent stand; up to 15 per cent of this stand gave Verticillium symptoms verified by cultures; seedlings on land not in potatoes the year before show little, if any, wilt or skips; observed in only two nurseries. Multnomah County. (Zeller)

ACER PENNSYLVANICUM, striped maple.

Rhytisma punctatum (Pers.) Fr., black-speckled leaf spot.

- +Pennsylvania - less than average year. (Overholts)

ACER RUBRUM, red maple.

Cytospora chrysosperma Fr., canker.

- +New Jersey - Morris County. (White)

FIGURE 17

KNOWN SPREAD OF WHITE PINE BLISTER RUST IN THE WEST

KNOWN LIMIT OF INFECTION IN 1922

KNOWN LIMIT OF INFECTION IN 1927

KNOWN LIMIT OF INFECTION IN 1923

KNOWN LIMIT OF INFECTION IN 1928

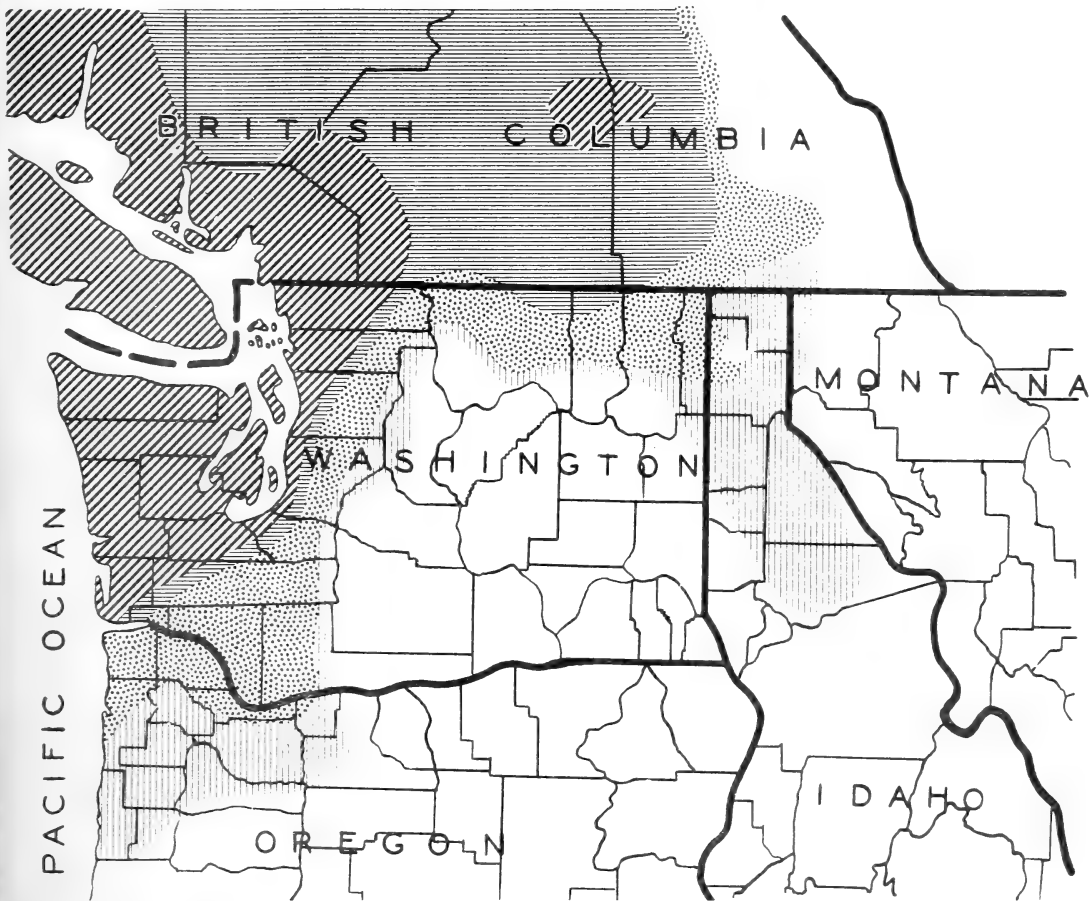


Figure 17. Map showing the known spread of blister rust on Ribes.

The situation with respect to pine infection previous to this season was as follows:

Heavy - Western British Columbia

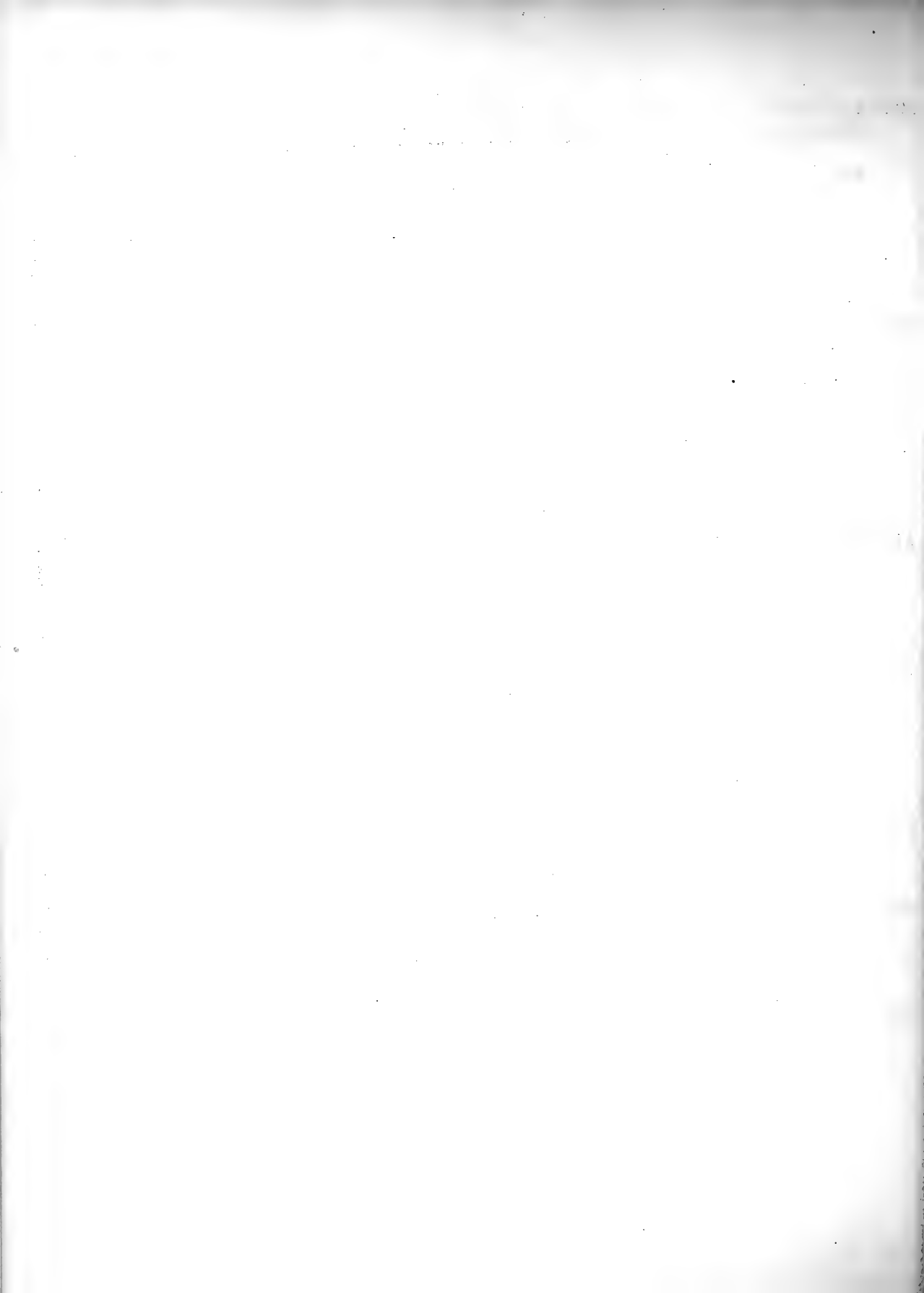
Medium and general - Eastern British Columbia and Western Washington.

Light and scattered - Eastern Washington and Northwestern Oregon.

PACIFIC NORTHWEST

SCALE-1 INCH = 92 MILES

6-28-29



ACER SACCHARUM, sugar maple.

Gloeosporium apocryptum Ell. & Ev., anthracnose.

+Maine, +Vermont, Virginia. (Waterman)

Phyllosticta minima (Berk. & Curt.) Ell. & Ev., leaf spot.

+Maine, +New York, New Jersey, and +Virginia. (Waterman)

Verticillium sp., wilt.

+New Jersey - Belvidere and Summit. (White)

Virginia - this disease is apparently getting a good foothold in the state. (Wingard)

AESCULUS HIPPOCASTANUM, horse chestnut.

Guignardia aesculi (Pk.) V. B. Stewart, leaf blotch.

Reported from Maine, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, +Kentucky, +Tennessee, +Texas, +Missouri, Kansas.

Uncinula flexuosa Pk., powdery mildew.

+West Virginia - general and severe; September 24. (Archer)

+Slime flux, undetermined.

New Jersey - Passaic County, June 6. (White)

AILANTHUS GLANDULOSA, ailanthus, tree of heaven.

+*Verticillium albo-atrum* Reinke & Berth., wilt.

Pennsylvania - several trees on the University of Pennsylvania campus were becoming defoliated and were dying; the above organism was isolated from wood and bark of the twigs. (Beach)

BETULA SP., birch.

+*Cylindrosporium betulae* Davis.

Delaware - "First report on this disease which was found to cause heavy defoliation. The disease behaves much like the cherry leaf spot and it would be advisable to destroy all overwintering leaves early in the spring." (Adams)

BETULA ALBA LACINIATA, cutleaf weeping birch.

+*Melanconium bicolor* Nees, canker.

New Jersey - Union County, August 16. (White)

CARAGANA ARBORESCENS, Siberian pea shrub.

+*Botrytis* sp.

Massachusetts - pods are killed and many times the seeds are rendered useless. Amherst, July 22. (Davis)

CASTANEA DENTATA, chestnut.

Endothia parasitica (Murr.) P. J. & H. W. Anderson, blight.

The following report has been received from R. B. Clapper, Office of Forest Pathology:

"Only very limited inspection work incidental to other work in the Southern Appalachians was carried on by members of the Office of Forest Pathology. Government and state foresters, county agents and private parties contributed estimates used in the preparation of the map showing the intensity and distribution of the chestnut blight. The survey revealed no unusual developments. The blight seems to have progressed at the usual steady rate. The lightest infection was in nineteen chestnut producing

counties in Kentucky, where the percentage of infection was a minimum of ten per cent to twenty-nine per cent. There are one or more counties in Tennessee, Georgia, North Carolina and South Carolina where the infection has reached eighty per cent to ninety-nine per cent and blight-killed chestnut trees range from one per cent to fifty per cent.

"A number of sprouts from blight-killed chestnuts were reported as producing nuts in the Northern States and seedlings from some of these sprouts are now being grown at Washington to test their resistance to the disease."

(See Figure 18.)

CATALPA OVATA, catalpa.

Caconema radicicola (Greef) Cobb, root knot.

Maryland - Bell, November 24. Collected by A. J. Bruman, determined by N. A. Cobb.

CELTIS OCCIDENTALIS, hackberry.

+*Macrophoma* sp.

Nebraska - (Waterman)

CINNAMOMUM CAMPHORA, camphor-tree.

+*Myxosporium* sp.

Georgia - (Waterman)

CORNUS SP., dogwood.

+*Phomopsis* sp.

District of Columbia - August 19. (Martin, Pl. Dis. Reporter 12: 113. 1928).

CRATAEGUS OXYACANTHA, English hawthorn.

Bacillus amylovorus (Burr.) Trev., blight.

+New Jersey - heavy infection; cankers on lower branches; Somerset County, August 1. (White)

+*West Virginia* - an old tree 18 inches diameter severely infected; Ridgeway, June 20. (Archer)

+*Indiana* - prevalent on this species but none on nearby *C. crusgalli*; Marion County, August 8. (Gardner)

+*Gymnosporangium germinale* (Schw.) Kern, rust.

New Jersey - Ocean County, July 23. (White)

ELAEOAGNUS ANGUSTIFOLIA, Russian olive.

+*Cytospora elaeagni* Allesch.

Oklahoma - (Waterman)

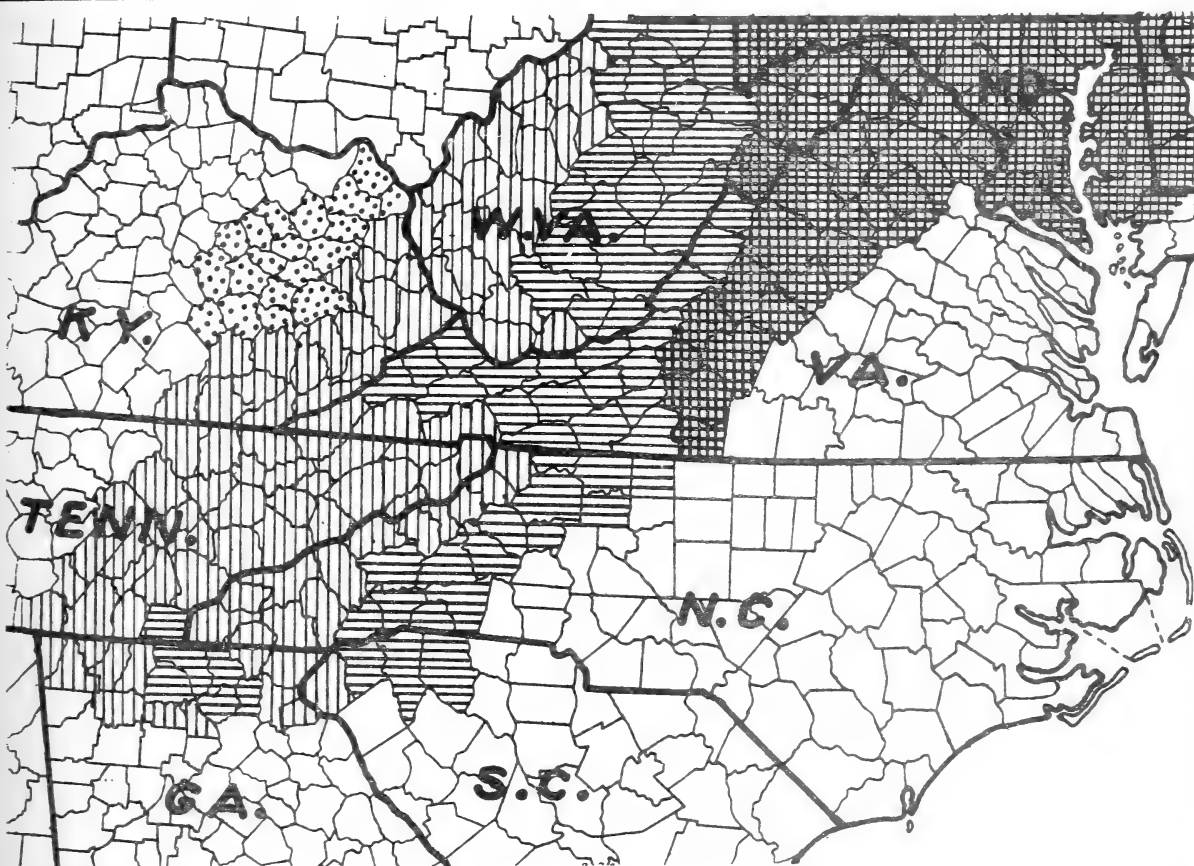
FRAXINUS LANCEOLATA, green ash.

+*Phymatotrichum omnivorum* (Shear) Dug., root rot.

Texas - 2 per cent loss. (Bach)

FIGURE 18

DISTRIBUTION OF CHESTNUT BLIGHT IN THE SOUTHERN APPALACHIANS



ESTIMATED PERCENTAGES OF INFECTED AND DEAD CHESTNUT TREES BY COUNTIES



10-29 INFECTED



30-79 INFECTED



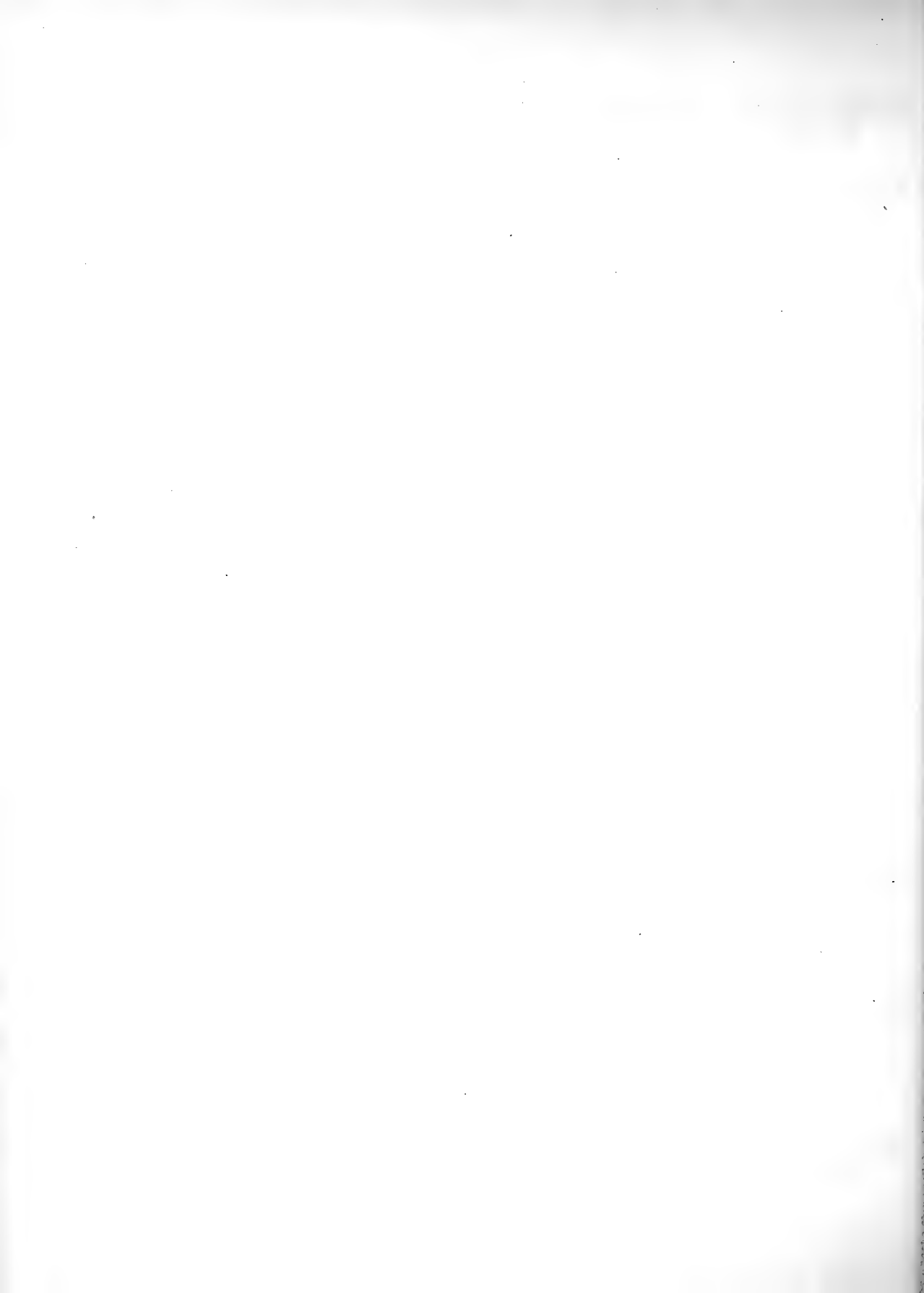
80-99 INFECTED
(1-50 DEAD)



100 INFECTED
(51-100 DEAD)

FEB. 1929

OFFICE OF FOREST PATHOLOGY U.S.D.A.



FRAXINUS OREGONA, Oregon ash.

Septogloeum fraxini Hark.

+*Washington - Thurston County, July 29. (Zundel)

GLEDITSIA TRIACANTHOS, honeylocust.

+Phymatotrichum omnivorum (Shear) Dug., root rot.

Texas - Bell and Hill Counties. (Taubenhaus and Dana).

LIRIODENDRON TULIPIFERA, tuliptree.

Cylindrosporium cercosporoides Ell. & Ev., leaf spot.

+*West Virginia - severe defoliation in southeastern corner of state;
Logan, September 6. (Archer)

MAGNOLIA SP., magnolia.

Cladosporium fasciculatum Oda.

+Maryland - (Waterman)

+Georgia - on M. grandiflora; general in southern part of state,
disfiguring the leaves; Thomasville, January. (Boyd).

+Gloeosporium sp., anthracnose.

New Jersey - Cumberland County, October 4. (White)

Maryland - (Waterman)

Phyllosticta sp., leaf spot.

+Virginia - (Waterman).

+Tubercularia sp.

New York - (Waterman)

MALUS CORONARIA, wild sweet crab apple.

+Illosporium malifoliorum Sheldon.

*West Virginia - moderate infection; Parkersburg, September 3. (Archer)

+Venturia inaequalis (Cke.) Aderh., scab.

*West Virginia - moderate infection; Morgantown, June 21. (Archer)

MALUS FLORIBUNDA, Japanese flowering crab.

+Bacillus amylovorus (Burr.) Trev., blight.

New Jersey - Union County, June 19. (White)

MALUS IOENSIS, prairie crab.

+Gymnosporangium juniperi-virginianae Schw., rust.

Massachusetts - 70 per cent leaf infection in an experimental bed consisting of 30 plants. (Davis)

Alabama - on M. ioensis var. plena. (Waterman)

NANDINA DOMESTICA, nandina.

+*Caecoma radiculicola (Greef) Cobb, root knot.

North Carolina - Winston Salem, March 24. (Cobb)

+Lophiostoma sp.

*Mississippi - Greenwood, June 26. Received from H. H. Wedgworth,
determined by G. Hamilton Martin.

NERIUM SP., oleander.

+Phymatotrichum omnivorum (Shear) Dug., root rot.

Texas - Bell County. (Taubenhaus and Dana)

PLATANUS OCCIDENTALIS, American planetree, sycamore.

Gnomonia veneta (Sacc. & Speg.) Kleb., anthracnose.

Reported from Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, +Kentucky, Tennessee, Ohio, Indiana, Iowa, Utah, +Oregon, Washington.

+*Phymatotrichum omnivorum* (Shear) Dug., root rot.

Texas - Bell County. (Dana)

Septoria platanifolia Cke., leaf spot.

+*West Virginia - Charleston, August 11. (Archer)

POPULUS SPP., poplar.

Cytospora chrysosperma (Pers.) Fr., canker.

Reported from New Jersey, Pennsylvania, Texas, Wisconsin, and Utah.

Dothichiza populea Sacc. & H. Briard, canker.

Reported from Massachusetts, New York, Pennsylvania, Delaware, Kentucky, Louisiana, Ohio, Indiana, Wisconsin.

Fusicladium tremulae Fr.

Reported from New Hampshire, Massachusetts, Connecticut. (Clinton,

Pl. Dis. Reporter 12: 55. 1928).

Marssonina populi (Lib.) Sacc.

+*West Virginia - on P. alba and P. deltoides; September. (Archer)

POPULUS LASIOCARPA, Chinese poplar.

+*Cytospora chrysosperma* (Pers.) Fr., canker.

*California - Shafter, December 10; collected by C. D. Neal, determined by J. A. Stevenson.

+*Dothichiza populea* Sacc. & H. Briard, canker.

Ohio - (Curtis May, Pl. Dis. Reporter 12: 55. 1928).

+*Physalospora* sp.

*Mississippi - Poplarville, March; collected by D. C. Neal; determined by N. O. Howard.

POPULUS MAXIMOWICZI, Japanese poplar.

+*Botryosphaeria fuliginosa* (M. & N.) Ell. & Ev., canker.

*Louisiana - Baton Rouge, March; collected by C. W. Edgerton and R. A. Young; determined by G. G. Hedgcock.

POPULUS NIGRA, black poplar.

+*Botryosphaeria ribis* Gross & Dug.

Georgia - (Waterman)

POPULUS TREMULOIDES, quaking aspen.

+*Sclerotium bifrons* Ell. & Ev., leaf spot.

New York - Oneida County. (Welch)

POPULUS TRICHOCARPA, western balsam poplar.

+*Cenangium populneum* (Pers.) Rehm, canker.

British Columbia - Kelowna, 1925. (Hubert)

QUERCUS SPP., oak.

+*Cylindrosporium* sp., leaf spot.

New Jersey - Milford, September 8. (White)

Gnomonia veneta (Sacc. & Speg.) Kleb., anthracnose.

Reported from Massachusetts, Connecticut, Pennsylvania, Virginia, Ohio, Illinois, Wisconsin, and Iowa.

+*Physalospora rhodina* (B. & C.) Cke.

*Iowa - Fayette County, June 22, 1927. (Archer)

Taphrina coerulescens (Mont. & Desm.) Tul., leaf blister.

Reported from New Jersey, Pennsylvania, North Carolina, Georgia, Florida, Mississippi, Louisiana, Texas, and Ohio.

QUERCUS PALUSTRIS, pin oak.

+*Phymatotrichum omnivorum* (Shear) Dug., root rot.

Texas - Bell and Falls Counties. (Taubenhaus and Dana)

QUERCUS RUBRA, common red oak.

+*Diplodia longispora* Cke. & Ell., twig blight.

*Ohio - Cincinnati, August. Collected by D. C. Grove; determined by G. Hamilton Martin.

ROBINIA PSEUDACACIA, black locust.

+*Phleospora robiniae* (Lib.) v. Höhn.

*West Virginia - severe; Milton, August 11. (Archer)

SALIX SP., willow.

Cytospora chrysosperma (Pers.) Fr., canker.

+New York - Suffolk County. (Welch)

+Oregon - Condon. (Zeller)

+*Phymatotrichum omnivorum* (Shear) Dug., root rot.

Texas- (Taubenhaus)

SALIX BABYLONICA, Babylon weeping willow.

+*Cytospora chrysosperma* (Pers.) Fr., canker.

Tennessee - (Waterman)

SALIX LASIANDRA

+*Marssonina* sp., twig blight.

Oregon - heavy infection on a few trees; Canyonville. (Zeller)

SCHINUS MOLLE, California peppertree.

+*Caconema radiculicola* (Greef) Cobb, root knot.

Texas - Dimmit County. (Taubenhaus)

SORBUS AMERICANA, American mountain ash.

+*Fusicladium dendriticum* var. *orbiculatum* Desm., leaf blight.

New York - Tioga County. (Welch)

SORBUS AUCUPARIA, European mountain ash.

+*Bacterium tumefaciens* EFS. & Towns. crown gall.

New Jersey - Essex County, September 15. (White)

+*Valsa leucostoma* (Pers.) Fr.

*West Virginia - Morgantown, August 15. (Archer)

TILIA SP., linden, basswood.

Massariella curreyi (Tul.) Sacc.

*New Jersey - Trenton, July. Collected by C. M. Scherer, determined by Vera K. Charles and G. Hamilton Martin. (Pl. Dis. Reporter 12: 83. 1928.)

P.r.: Porto Rico, District of Columbia, Pennsylvania.

+Phymatotrichum omnivorum (Shear) Dug., root rot.

Texas - 1 per cent loss, Bell County. (Taubenhaus and Dana)

+Strumella sp.

*New Jersey - Trenton, July. Collected by C. M. Scherer, determined by G. Hamilton Martin. (Fl. Dis. Reporter 12: 113. 1928).

ULMUS SPP., elm

Gnomonia ulmea (Sacc.) Thuem., black spot.

+Mississippi - Grenada County, May 25. (Neal, Wedgworth, and Miles).

D I S E A S E S O F O R N A M E N T A L S

ACONITUM, monkshood.

+Botrytis sp.; stem rot.

New Jersey - local; Summit, Union County, August 1. (White)

Erysiphe polygoni DC., powdery mildew.

+New York - especially prevalent on plants growing in the shade; Yonkers, September 14. (Guterman)

Sclerotium delphinii D. S. Welch, crown rot.

+*District of Columbia - August 16. (Penner, Fl. Dis. Reporter 12: 113, 1928)

+Mosaic (undetermined)

New York - local; Yonkers, May 12. (Guterman)

ACTINIDIA SPP., actinidia.

+Caconema radiculicola (Greef) Cobb, root knot.

*Maryland - on A. chinensis x arguta and A. purpurea, November 21. (Cobb)

ALETIS SP., stargrass.

+*Gloeosporium aletidis P. Henn., leaf spot.

Mississippi - Forest County, June 16. Collected by H. H. Wedgworth, determined by G. Hamilton Martin.

ALTHAEA ROSEA, holyhock.

Ascochyta althaeina Sacc. & Bizz.

+*West Virginia - Morgantown, September 16. (Archer)

Caconema radiculicola (Greef) Cobb, root knot.

+Mississippi - local, July 19. (Neal, Wedgworth, and Miles)

Colletotrichum malvarum (Braun & Casp.) E. A. El. Southworth, anthracnose.

+Mississippi - Macon, July 17. (Neal, Wedgworth, and Miles)

+Septoria althaeae Thuem., leaf spot.

Ohio - Cincinnati, fall. (Wilson)

ALYSSUM MARITIMUM, sweet alyssum.

+Pythium sp., damping-off.

New Jersey - Essex, April 27. (White)

+Rhizoctonia sp., damping off.

New Jersey - Essex, April 27. (White)

AMPELOPSIS TRICUSPIDATA, Japanese creeper.

+Cercospora ampelopsidis Fk. (leaf spot).

Mississippi - Canton, May 25. (Neal, Wedgworth, and Miles)

Guignardia bidwellii (Ell.) Viala and Ravaz, black rot.

+Tennessee - (Waterman)

ANDROMEDA SP., bog-rosemary.

+Pestalozzia sp., leaf spot.

New Jersey - local; Deerfield, June 21. (White)

ANTIRRHINUM MAJUS, snapdragon.

+Bacterium tumefaciens EPS. and Towns.

New York - North Germantown, February 7. (Weiss)

Phyllosticta antirrhini Syd., damping off.

+Washington - 66 per cent of Golden Monarch variety were killed or seriously affected; local; Spokane, November 24. (Dept. Pl. Path.)

Rhizoctonia sp.

+Texas - Williamson County. (Taubenhaus)

Verticillium sp., wilt.

+Massachusetts - severity increased by heavy watering; general. (Guba)

AQUILEGIA SP., columbine.

Erysiphe polygoni DC., powdery mildew.

+*West Virginia - Morgantown, September 16. (Archer)

+Marssonina aquilegiae (Rbh.) Rostr., leaf spot.

New Jersey - local; Middlesex County, September 15. (White)

*Pennsylvania - State College, October 6. Collected by H. W. Thurston, determined by G. Hamilton Martin. (Pl. Dis. Reporter 12: 139. 1928).

Mosaic (undetermined)

+New York - seen on a few clumps of plants in a single garden; mottling very pronounced with some leaf distortion; Yonkers, May 23. (Guterman)

ASPARAGUS PLUMOSUS, fern asparagus.

+Ascochyta asparagina Petr., blight.

Texas - local. Collected and determined by W. J. Bach, verified by F. A. Wolf.

Cladosporium sp.

+*Mississippi - Attala County, July 2. Received from H. H. Wedgworth, determined by G. Hamilton Martin.

+Didymosphaeria brunneola Niessl.

*Florida - Winter Garden, September 14. Collected and determined by Anna E. Jenkins. (Pl. Dis. Reporter 12: 144. 1928).

AZALEA INDICA, indica azalea.

Exobasidium vaccinii (Fckl.) Wor., gall.

+Georgia, +Michigan - (Waterman)

AZALEA KAEMPFERI, torch azalea.

+Botrytis sp., rot of cuttings.

New Jersey - Deerfield, March 15. (White)

Exobasidium vaccinii (Fckl.) Wor., gall.

New Jersey - Deerfield, March 15. (White)

AZALEA SP., azalea.

+Ramularia angustata Pk., leaf spot.

Mississippi - Pearl River County, June 19. (Neal, Wedgworth, and Miles)

BEGONIA SP., begonia.

Bacterium sp., leaf spot.

+New Jersey - Peerless variety very resistant; Melior very susceptible; local; 50 to 60 per cent loss; Bergen County, February 4. (White)

Caconema radicumicola (Greef) Cobb, root knot.

Washington - in greenhouse; Whitman County. (Dept. Pl. Path.)

BUDDLEIA STENOSTACHYS, butterflybush.

Caconema radicumicola (Greef) Cobb, root knot.

+Maryland - Prince Georges County, November 24. (Cobb).

Phymatotrichum omnivorum (Shear) Dug., root rot.

Texas - 2 per cent loss; Bell County. (Dana)

BUXUS SEMPERVIRENS, common box.

Guignardia buxi (Fckl.) Feltz, leaf blight.

+*Massachusetts - March 22. Collected by E. F. Guba, determined by W. W. Diehl.

Macrophoma candollei (Berk. and Br.) Berl. and Vogl., leaf blight.

First reports for Connecticut, Delaware, Kentucky, Alabama. (Waterman)

Nectriella rousseliana (Mont.) Sacc., canker.

First reports for Connecticut, Delaware, Alabama. (Waterman)

+*District of Columbia - Montrose Park, October 20. Collected and determined by G. Hamilton Martin. (Pl. Dis. Reporter 12: 139. 1928)

+*Virginia - both Verticillium and Volutella phases present. Orange County, November 19. Collected by Mrs. J. J. Woodruff, determined by G. Hamilton Martin. (Pl. Dis. Reporter 12: 150. 1928).

+*Phomopsis stictica (B. & Br.) Trav.

District of Columbia - November. Collected and determined by G. Hamilton Martin.

Phomopsis sp.

District of Columbia - (Waterman)

Phyllosticta auerswaldii Allesch., leaf spot.

+*District of Columbia - October 20. Collected and determined by G. Hamilton Martin. (Pl. Dis. Reporter 12: 139. 1928).

+Tubercularia sp.

Kentucky - (Waterman)

CALENDULA OFFICINALIS, calendula.

+Cladosporium sp.

Ohio - in a greenhouse; Cincinnati, fall. (Wilson)

+Sclerotium rolfsii Sacc., stem rot.

Texas - prevalent in sandy soils; 2 per cent loss; Lee County. (Taubenhaus)

Yellows (undetermined)

Delaware - much more prevalent. (Adams)

Virginia - in hot beds. (Pl. Dis. Reporter 12: 9. 1928) (McWhorter)

CALLISTEPHUS CHINENSIS, China aster.

Coleosporium solidaginis (Schw.) Thuem., rust.

+*Ohio - quite prevalent in Greene, Miami, Montgomery Counties, September 8. (Pl. Dis. Reporter 12: 113. 1928) (Mendenhall)

+Wisconsin - Madison, August 1. (Vaughan)

Fusarium conglutinans callistephi Beach, wilt.

Reported from New Hampshire, Massachusetts, New York, New Jersey, Pennsylvania, Delaware (more prevalent than in 1927 in home plantings. Adams) West Virginia (many plantings were entirely blighted early in the season; 10 per cent infection was common throughout the state. Archer, Pl. Dis. Reporter 12: 130. 1928), +Kentucky, Indiana, Michigan (marked increase in the severity due to favorable temperature conditions and congenial soil condition for infection, Nelson), Wisconsin, Minnesota, Iowa, Missouri, Kansas, Utah, Oregon.

Fusarium spp.

Reported from Maine, New Hampshire, and Washington.

See Bibl. Jones (8), Kunkel (10)

Phoma sp.

+Mississippi - Greenwood, September 12. Received from H. H. Wedgworth, determined by G. Hamilton Martin.

Yellows (undetermined)

Massachusetts - very important; 10 per cent reduction, less than in 1927. (Davis)

Connecticut - appears to be prominent this year. (Clinton)

New York - very prevalent in many gardens; seen in several commercial plantings. (Guterman)

New Jersey - general; 100 per cent infection on seedling plants set in field at Summit; June 5. (White)

*Pennsylvania - more prevalent; local infection 100 per cent; no resistant varieties. (Thurston)

Delaware - much more prevalent; most plantings a failure. (Adams)

Maryland - (Norton)

*Virginia - Richmond, August 15. (Fenner)

+West Virginia - fully 50 per cent of the blossoms were ruined. (Archer)

+Kentucky - extensive injury in two small plantings at Lexington. (Valleau)

Michigan - 10 to 20 per cent reduction; more severe than in 1927, general. (Nelson)

Wisconsin - widespread. (Vaughan)

Minnesota - general; usual prevalence. (Sect. Pl. Path.)

Iowa - general; 15 per cent loss; quite severe wherever asters were grown.

North Dakota - general.

Kansas - 25 per cent loss; usual prevalence. (Elmer)

Utah - 16 per cent infection in a local field of 1 1/2 acres. (Richards)

+Montana - Billings, August 1. (Young)

+Oregon - local; Roseburg. (Barsse)

See Bibl. Jones (8), Kunkel (11) (12), Ogilvie (17).

CALYCANTHUS SP., sweetshrub.

+*Bacterium tumefaciens* EFS. & Towns., crown gall.

Mississippi - Bolivar County, February 13. (Neal, Wedgworth, and Miles).

CAMELLIA JAPONICA, common camellia.

Pestalozzia inquinans Oke. & Hark.

+Georgia - (Waterman)

CANNA SP., canna.

Bacterium cannae M. K. Bryan, bacterial bud rot.

+New Jersey - 15 per cent total loss; more prevalent; Middlesex County, August 13. (White)

CHEIRANTHUS CHEIRI, common wallflower.

+Rhizoctonia sp., damping off.

New Jersey - local; 8 per cent loss; Middlesex County, February 3. (White)

CHRYSANTHEMUM SP.

Botrytis sp., leaf spot and blight.

+*Virginia - Sedley, November 3. (Weiss)

Caconema radiculicola (Greef) Cobb, root knot.

+*Iowa - DeWitt, February 8. (Cobb & Steiner, Pl. Dis. Reporter 12: 10. 1928)

Fusarium sp., wilt.

+Virginia - more or less common each year in a local greenhouse. (Wingard)

Phyllosticta chrysanthemi Ell. & Ev., leaf spot.

+Mississippi - Pearl River County, June 19. (Neal, Wedgworth, and Miles)

Septoria chrysanthemella Cav., leaf spot.

+Ohio - Cincinnati, fall. (Wilson)

CLARKIA SP., clarkia.

+Botrytis sp., stem canker.

New York - severe locally in greenhouses. (Massey)

CLEMATIS INTEGRIFOLIA

+*Caconema radiculicola (Greef) Cobb, root knot.

Maryland - Prince Georges County, February 21. (Cobb and Steiner, Pl. Dis. Reporter 12: 10. 1928)

CLERODENDRON SPP., glorybower.

+*Caconema radiculicola (Greef) Cobb, root knot.

Maryland - on C. fargesii, C. gaetidium, C. trichotomum, Prince Georges County, November 24. (Cobb)

COLOCASIA SP., elephants ear, taro, dasheen.

Sclerotium rolfsii Sacc., southern blight.

+Florida - the fungus followed the petioles of ripened leaves to the bulb, killed the plant and caused a soft pulpy rot. (West)

COSMOS SP., cosmos.

+Phymatotrichum omnivorum (Shear) Dug., root rot.

Texas - 10 per cent loss; Bell and Dallas Counties. (Taubenhaus and Dana)

Phomopsis stewartii Pk., stem canker.

+New Jersey - Cape May, August 2. (White)

+*West Virginia - 15 per cent plants severely cankered; Morgantown, October 31. (Archer)

+Yellows (undetermined)

Delaware - much more prevalent; most plantings a failure. (Adams)

COTONEASTER SP., cotoneaster.

+Pestalozzia sp.

*Mississippi - Jackson, December. Received from H. H. Wedgworth, determined by G. Hamilton Martin.

CRYPTOGRAMMA ACROSTICHOIDES, American rockbrake.

+Pestalozzia sp., leaf blight.

New Jersey - Mercer County, February 20. (White)

CYCLAMEN SP., cyclamen.

+Bacterium sp., bacterial rot.

New Jersey - Ocean and Somerset Counties, July 2. (White)

Caconema radiculicola (Greef) Cobb, root knot.

+Mississippi - Grenada County. (Neal, Wedgworth, and Miles)

CYDONIA SPP., quince.

+Pestalozzia sp., blight.

Virginia - Blacksburg, September 19. (Wingard)

DAHLIA SP., dahlia.

+Alternaria sp., leaf spot.

Mississippi - Clay County, July 24. (Neal, Wedgworth, and Miles)

Caconema radiculicola (Greef) Cobb, root knot.

Georgia - (Cobb and Steiner, Pl. Dis. Reporter 12: 10. 1928)

Erysiphe cichoracearum DC., powdery mildew.

+Mississippi - Carroll County, October 6. (Neal, Wedgworth, and Miles)

+Utah - severe in several gardens visited. (Richards)

Stunt, dwarf.

Delaware - very general; many plantings a complete failure; commonly observed that on light or well-drained soil the growth of plants were most successful. (Adams)

Maryland - average prevalence. (Norton)

+Georgia - Sparta, July 10. (Haskell, Pl. Dis. Reporter 12: 69. 1928)

+Utah - Salt Lake County. (Richards)

Bibl. Kunkel (11) states that stunt has been considered as possibly identical with aster yellows, but that experiments have proved that aster yellows cannot be transmitted to dahlia.

DELPHINIUM SP., larkspur.

Bacterium delphinii (EFS.) Bryan, black spot.

Delaware - Wilmington, June 26. (Adams)

New York - slight in vicinity of New York City, May 24. (Guterman)

New Jersey - average prevalence; Somerset County, June 14. (White)

Pennsylvania - Center and Luzerne Counties. (Thurston)

Erysiphe polygoni DC., powdery mildew.

Reported from New York, +New Jersey, Washington.

Sclerotium delphinii D.C. Welch, root and crown rot.

New York - most serious on plants in wet, poorly drained soils;

Yonkers, June 25. (Guterman)

New Jersey - average prevalence; Union County, August 15. (White)

*Virginia - on D. Belladonna; Warrenton, July 3. (Weiss)

Sclerotium rolfsii Sacc., stem rot.

- +Mississippi - Washington County, May 22. (Neal, Wedgworth, & Miles)
- +Texas - 5 per cent loss; Lee County. (Taubenhaus)

DEUTZIA LONGIFOLIA, long leaf deutzia.

+**Aphelenchus* sp., nema.

District of Columbia - May 15. (Cobb)

DEUTZIA LONGIFOLIA VEITCHII

+*Cephalobus* spp., nema

*Maryland - Prince Georges County, November 21. (Cobb)

Tylenchus sp., nema

+*Maryland - Prince Georges County, November 21. (Cobb)

DIANTHUS BARBATUS, sweet william.

+*Volutella dianthi* (Hal.) Atk., anthracnose.

Delaware - New Castle, May 30. (Adams)

DIANTHUS CARYOPHYLLUS, carnation.

Alternaria dianthi F. L. Stevens & J. G. Hall, leaf spot and branch rot.

+Massachusetts - general; disease begins on young plants in field; yield of blooms in greenhouse considerably lowered. (Guba)

New York - Nassau County, August 6. (Massey)

New Jersey - most severe after field-grown plants are moved to greenhouse; 80 per cent maximum infection in one planting; Burlington County, July 23. (White)

+Wisconsin - serious locally; Eau Claire, September 15. (Vaughan)

+Virginia - 80 per cent loss to a local crop; Roanoke. (Wingard)

Bacterium woodsii EFS., bacterial spot.

+New York - general; Enchantress variety resistant; Matchless, *Spectrum*, Septa, Eldora, and Rosalind varieties very susceptible. (Massey)

Caconema radiculicola (Greef) Cobb, root knot.

+Mississippi - Lee County, November 6. (Neal, Wedgworth, & Miles)

Fusarium sp., wilt.

Reported from Massachusetts, New York, Pennsylvania, Delaware, +Virginia.

+*Sclerotium rolfsii* Sacc., stem rot.

Mississippi - Greenwood, June 20. (Neal, Wedgworth, & Miles)

Sporotrichum poae Pk., bud rot.

+Virginia - Newport News, November 23. (McWhorter, Pl. Dis. Reporter 12: 149. 1928).

Uromyces caryophyllinus (Schrank) Wint., rust.

Reported from +New Hampshire, Massachusetts, New Jersey, Pennsylvania, Delaware, North Carolina, Mississippi, Texas, Ohio, Wisconsin, Iowa, Missouri, Kansas, Colorado, Washington, Oregon.

DIANTHUS CHINENSIS Hort. var. *heddewigi*, Heddewig pink.

Rhizoctonia sp., root rot.

New York - found twice; serious in one garden; Yonkers, May 12. (Guterman)

DIERVILLA spp., bush-honeysuckle.

+*Caconema radiculicola* (Greef) Cobb, root knot.

*Maryland - Prince Georges County, November 23. (Cobb)

EUONYMUS SP., euonymus.

Bacterium tumefaciens EFS. & Towns, crown gall.

+New Jersey - local; 10 per cent loss; 300 plants 18 years old showed large galls at crown and smaller ones on the stems; Essex County, August 24. (White)

+*Cytospora euonymella* Pass., leaf spot.

New Jersey - local; Essex, May 25. (White)

Phyllosticta euonymi Sacc., leaf spot.

+New Jersey - Essex County, May 25. (White)

EUONYMUS ATROPURPUREUS, wahoo.

Marssonina thomasi Sacc., leaf spot.

+Ohio - Cincinnati, fall. (Wilson)

EUONYMUS JAPONICA, evergreen burningbush.

+*Gloeosporium frigidum* Sacc., anthracnose.

Arkansas - (Waterman)

+*Phyllosticta euonymi* Sacc., leaf spot.

Virginia and Mississippi - (Waterman)

FORSYTHIA SP., forsythia.

+*Sclerotium rolfsii* Sacc., stem rot.

Georgia - killing two shoots from base of one plant. Experiment, July 11. (Haskell, Pl. Dis. Reporter 12: 69. 1928)

GALAX SP., galax

Phyllosticta galactis (Cke.) Ell. & Ev., leaf spot.

+New York - serious for past two years; leaf spot on leaves in cold storage, 32 - 35° F. (Massey)

GARDENIA FLORIDA, cape jasmine.

Caconema radiculicola (Greef) Cobb, root knot.

Washington - King County. (Dept. Pl. Path.)

+*Phymatotrichum omnivorum* (Shear) Dug., root rot.

Texas - Bell and Hidalgo Counties. (Dana & Bach)

GLADIOLUS SP., gladiolus.

Alternaria fasciculata (Cke. & Ell.) Jones & Grout.

+*West Virginia - Morgantown, September 16. (Archer)

Bacterium marginatum McC., stem rot, scab.

+New Jersey - general; more prevalent than average year. (White)

Delaware - more prevalent than usual; very severe on Mrs. Francis King; Seaford, September 7. (Adams)

Maryland - College Park, August 17. (Weiss, Pl. Dis. Reporter 12: 130. 1928)

Mississippi - general; Poplarville, May 9. (Neal, Wedgworth, & Miles)

Michigan - general; less important than usual probably due to very favorable growing conditions for host. (Nelson)

Wisconsin - general; average prevalence; Madison, June 15. (Vaughan)

+Colorado - very prevalent. (LeClerg)

Fusarium oxysporum gladioli Massey, fusarium rot.

New Jersey - general. (White)

+*Penicillium gladioli* McC. & Thom, corm rot.

McCulloch and Thom (13) give a detailed account of investigations on this disease. They found in experiments that the sclerotia of the fungus are rather resistant to corrosive sublimate and commercial fungicides. It has been found in Indiana, Iowa, Kansas, Minnesota, New Mexico, New York.

+*Sclerotium gladioli* Massey, corm dry rot.

Important in United States and Canada, has also been found in specimens from England, France, and Holland (Massey, 16).

Septoria gladioli Pass., hard rot, leaf spot.

New Jersey - general. (White)

+Pennsylvania - becoming quite general. (Thurston)

+*South Carolina - Mayesville, June 2. (L. M. Fenner)

Mississippi - Pearl River and Scott Counties, June 4. (Neal, Wedgworth, & Miles)

Wisconsin - important locally. (Vaughan)

+Mosaic

New York - seen in occasional plantings; caused severe distortion of the flowers and abnormal coloration; Yonkers, April 23. (Guterman)

New Jersey - several varieties including America, Marshall Foch, and Peace were exhibited by R. P. White at the field meeting of the Phytopathological Society at Rutherford. (Haskell)

Washington - King and Whitman Counties. (Dept. Pl. Path.)

*Montana - Yellowstone County, July 28. (Young, Pl. Dis. Reporter 12: 139. 1928.

See Bibl. Dosdall (6)

HEDERA HELIX, English ivy.

Phyllosticta concentrica Sacc., leaf spot.

+*West Virginia - observed throughout state; causes plant to have a bedraggled appearance; severe leaf casting is the common result of infection; a twig blight seems also to be caused by this organism; Morgantown, June 10. (Archer)

HELIANTHUS GIGANTEUS, giant sunflower.

Puccinia helianthi-mollis (Schw.) Jack., rust.

+*West Virginia - moderate infection, Hamlin, September 7. (Archer)

+**Septoria helianthi* Ell. & Kell., leaf spot.

West Virginia - causing death of some plants; Hamlin, September 7. (Archer)

HELICHRYSUM SP., everlasting.

+*Fusarium* spp., stem rot.

Washington - Clallam County. (Dept. Pl. Path.)

HELICHRYSUM BRACTEATUM

+*Aster yellows, undetermined.

District of Columbia - Washington, August 8. (A. Fenner)

Curly top

Washington and California - (McKay, 14)

HELIOTROPIMUM PERUVIANUM, common heliotrope.

Verticillium albo-atrum Reinke & Berth., wilt.

District of Columbia - Washington, (Bryan, 3)

HYACINTHUS SP., hyacinth.

Bacterium sp., rot.

+New Jersey - on forced bulbs; often able to pick out center flower stalk when the slimy bacterial decay developed; Middlesex County, April 14. (White)

Bacterium hyacinthi J. H. Wakker, yellow disease.

+Washington - Pierce County. (Dept. Pl. Path.)

HYDRANGEA SP., hydrangea

Cladosporium sp.

District of Columbia - July. (Martin)

Missouri - (Pl. Dis. Reporter 12: 113. 1928)

Colletotrichum sp., anthracnose.

+Delaware - on variety Otaksa; Milford, August 16. (Adams)

+*District of Columbia - Washington, September. (Martin)

+*Glomerella cingulata (Ston.) Spauld. & Schrenk, anthracnose.

Missouri - Jefferson, September 5. Obtained from culture of Colletotrichum sp. Collected by A. C. Burrill, determined by G. Hamilton Martin.

Phyllosticta hydrangeae Ell. & Ev., leaf spot.

+New York - general; a wet season, Erie County, May 2. (Massey)

New Jersey - more prevalence than average year; Monmouth County, February 11. (White)

+Delaware - on variety Baby Bimbenet. (Adams)

+*District of Columbia - Washington, July. (Martin)

+*Missouri - Jefferson, September 5. Collected by A. C. Burrill, determined by G. Hamilton Martin.

ILEX SPP. holly.

Physalospora ilicis Schleich., leaf spot.

New Jersey - on cuttings of Ilex aquifolium, I. crenata, I. opaca; local; very severe; Cumberland County, May 14. (White)

Sphaeropsis sp., leaf spot.

New Jersey - local; Middlesex County, September 17. (White)

INDIGOFERA SP., indigo.

Phymatotrichum omnivorum (Shear) Dug., root rot.

Texas - Bell County (Dana)

IRIS SPP., iris

Bacillus carotovorus L. R. Jones, soft rot.

+Mississippi - Warren County, September 25. (Neal, Wedgworth, & Miles)

Gaeonema radiculicola (Greef) Cobb, root knot.

+Washington - Pierce County. (Dept. Pl. Path.)

Didymellina iridis (Desm.) Hoehn., leaf spot.

+Massachusetts, New York, New Jersey, Pennsylvania, Delaware, District of Columbia, Virginia, West Virginia, Mississippi, Michigan, Wisconsin, Minnesota, Utah, Montana, Washington, Oregon.

+*Leptosphaeria heterospora (De Not.) Niessl.

District of Columbia - Washington, February 17. Collected by R. J. Haskell, determined by W. W. Diehl.

Penicillium sp., rot.

+Oregon - general. (Brierley)

Scolecotrichum iridis Fautr. & Roum., leaf spot.

+Nebraska - Burt and Lancaster Counties. (Goss)

+*Sclerotium delphinii* D. S. Welch, crown rot.

New York - New York Botanical Garden, August 21. (Haskell)

New Jersey - Monmouth, July 27. (White)

Septoria sp., leaf spot.

+Colorado - Fort Collins, June 12. (LeClerc)

Mosaic

+New Jersey - local; on many varieties; Middlesex County, June 5.
(White)

+Washington - Pacific and Pierce Counties. (Dept. Pl. Path.)

+Oregon - general; on bulbous varieties; Benton County. (Brierley)

KALMIA LATIFOLIA, mountain laurel.

Phomopsis kalmiae Enlows, leaf blight.

+New York - general; more prevalent. (Massey)

New Jersey - scattered; average prevalence; Union County, June 19.
(White)

Phyllosticta kalmicola (Schw.) Ell. & Ev., leaf spot.

New York - more prevalent than last three years; in many instances

almost complete defoliation resulted; Yonkers, May 16. (Guterman)

Maryland - (Waterman)

LAGERSTROEMIA INDICA, crape myrtle.

Uncinula australiana McAlp. powdery mildew.

Georgia - (Haskell, Pl. Dis. Reporter 12: 70. 1928)

LATHYRUS ODORATUS, sweet pea.

+**Erostrotheca multiflormis* Martin & Charles (*Cladosporium album* Dowson),
white blight.

New York - severe in several greenhouses in Nassau County, April 10.
(Massey)

Pennsylvania - a number of growers in Lancaster County had considerable
trouble with this disease, March 1. (Martin)

See Bibl. Martin & Charles (15)

Glomerella cingulata (Ston.) Spauld. & Schrenk, anthracnose.

+Maine - (Folsom, Pl. Dis. Reporter 12: 82. 1928)

+*Vermont - Middleburg, August 2. (A. Fenner)

Mosaic, virus

Reported from New York (Guterman), and New Jersey (White)

LANTANA SP., lantana

+*Macrosporium* sp., leaf spot.

Texas - unimportant. (Bach)

+*Phymatotrichum omnivorum* (Shear) Dug., root rot.

Texas - Bell and Bexar Counties. (Taubenhaus & Dana)

LIGUSTRUM SPP.,

+*Caconema radicicola* (Greef) Cobb, root knot.

*North Carolina - on *L. lucidum*; Winston-Salem, April 24. (Cobb and
Steiner, Pl. Dis. Reporter 12: 10. 1928)

*Maryland - on *L. yunnanensis*; Bell, November 24. (Cobb)

+*Colletotrichum* sp., anthracnose.

Texas - on *L. lucidum*; Bexar County. (Taubenhaus)

+*Pezizella lythri* (Desm.) Shear & B. O. Dodge.

E. multiflormis

- *District of Columbia - on *L. ovalifolium*; June. Collected and determined by G. Hamilton Martin.
- Phyllosticta ovalifolii* Brun., leaf spot.
- +*District of Columbia - Georgetown, June 4. Collected and determined by G. Hamilton Martin.
- +*Mississippi - Perkinson, March 6. Received from H. H. Wedgworth, determined by A. E. Jenkins.

LILIUM SPP., lily.

- Botrytis* spp., blight.
- Reported from New York (Guterman), +*Alabama, +*Ohio (Charles & Martin, Pl. Dis. Reporter 12: 82. 1928), +Washington (Dept. Pl. Path.)
- +*Cladosporium* sp.
- Reported from *District of Columbia, *Virginia, *Alabama, *Ohio (Charles & Martin, Pl. Dis. Reporter 12: 82. 1928)
- Fusarium* sp.
- Reported from +*District of Columbia, +*Virginia, +*Ohio (Charles & Martin, Pl. Dis. Reporter 12: 82. 1928)
- Kabatiella microstricta* Bub.
- Reported from *Virginia (Charles & Martin, Pl. Dis. Reporter 12: 82. 1928)
- Phytophthora cactorum* (Leb. & Cohn.) Schröt.
- +Indiana - (Drechsler, Pl. Dis. Reporter 13: 8. May 15, 1929)
- +*Sporotrichum* sp., blossom and twig blight.
- Virginia - Roanoke, June 15. (Wingard, Pl. Dis. Reporter 12: 35. 1928)
- Uromyces holwayi* Lagh., rust.
- +Oregon - on *L. washingtoniana* (Washington lily); Douglas County, June 22. (Zeller). P.r.: California.
- Mosaic - virus.
- +New York - Silver Creek, July 18. (Massey)
- +Mississippi - A. & M. College, February 4. (Neal, Wedgworth, & Miles)

MATTHIOLA SP., stock.

- +*Fusarium* sp., root rot.
- Delaware - very severe in plantings; June 15. (Adams)

MENTZELIA AUREA, blazing star.

- +*Rhizoctonia* sp., root and stem rot.
- New Jersey - local; on cuttings; Essex County, April 27. (White)

MIRABILIS JALAPA, four o'clock.

- +*Phymatotrichum omnivorum* (Shear) Dug., root rot.
- Texas - 2 per cent loss; Bell County. (Dana)

NARCISSUS SPP., narcissus.

- +**Aphelenchus apiculatus* Cobb, nema.
- Illinois - Paxton, May 18; collected by P. A. Glenn, determined by N. A. Cobb (Pl. Dis. Reporter 12: 35. 1928)
- +**Aphelenchus modestus* De Mau, nema.
- Wisconsin - Madison, May 8; collected by E. L. Chambers, determined by N. A. Cobb.

+*Aphelenchus parietinus Bast., nema.

New York - Riverhead, Long Island, March 22; received from Bureau of Entomology, determined by N. A. Cobb.

Fusarium sp., root rot.

+*Mississippi - general; caused practically a failure of 3,000 plants at A. & M. College, February 4. (Neal, Wedgworth, & Miles)

Washington - Pierce County. (Dept. Pl. Path.)

Oregon - severe at Corvallis. (Brierley)

See Bibl. Weiss (23), (24); Wedgworth (22).

+Sclerotium deaphinii D. S. Welch, crown rot.

Virginia - collected by F. P. McWhorter, determined by H. H. Whetzel.

+Stagonospora curtisii (Berk.) Sacc.

North Carolina - Wilmington; April 13. Collected by Bruman, determined by F. Weiss.

Washington - (Weiss)

Oregon - general; Corvallis, March 23. (Weiss & Brierley)

Tylenchus dipsaci (Kuehn) Bast., bulb nematode.

Reported from *New York, New Jersey, +*North Carolina, +*Ohio, *Michigan, *Illinois, *Washington, and Oregon. Determinations made by N. A.

Cobb and G. Steiner, Pl. Dis. Reporter 12: 35. 1928.

See Bibl. Poos (18).

+Verticillium foexii Kingma.

Kansas - collected by R. P. White 1925. (Kingma, 9)

Mosaic (gray disease), undetermined.

+Mississippi - general; A. & M. College, February 4. (Neal, Wedgworth, & Miles)

+Michigan - general; 2 to 5 per cent total loss. (Nelson)

+Washington - Pierce County. (Dept. Pl. Path.)

Oregon - general. (Brierley)

California - general; considerable increase over 1927. (Milbrath)

NERIUM OLEANDER, common oleander.

Pseudomonas savastanoi var. *nerii* C. O. Smith.

+California - C. O. Smith (20)

OXALIS STRICTA, common yellow oxalis.

Ustilago oxalidis Ell. & Tracy, smut.

+*Pennsylvania - Blair and State Counties, July 21. Collected and determined by G. L. Zundel, Pl. Dis. Reporter 12: 71. 1928,

PAEONIA SPP., peony.

Botrytis paeoniae Oud., blight.

Reported from New Hampshire, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, Michigan, Wisconsin, Minnesota, +Missouri, Colorado, Washington, +Oregon.

Caconema radiculicola (Greef) Cobb, root knot.

New Jersey - local; Norwood, April 13. (White)

Maryland - bad on eastern shore. (Norton)

Michigan - reports from growers indicate that this disease is on the increase; serious in Wayne County, also in southwestern part of state on lighter soils. (Nelson)

Washington - Snohomish County. (Dept. Pl. Path.)

Cladosporium paeoniae Pass., leaf mold.

District of Columbia - severe, September 9. (Martin, Pl. Dis.

Reporter 12: 113. 1928)

Michigan - (Nelson)

+*Colletotrichum* sp., anthracnose.

*District of Columbia - (Martin, Pl. Dis. Reporter 12: 139. 1928)

Fusarium sp., stem rot.

+Colorado - caused some damage; local; June 12. (LeClerc)

+*Glomerella cingulata* (Ston.) Spauld. & Schrenk, anthracnose.

District of Columbia - Washington; September 9. Obtained from culture of *Colletotrichum* sp. Collected and determined by G. Hamilton Martin.

Phyllosticta commonsii Ell. & Ev., leaf spot.

Reported from +*District of Columbia (Martin) and +*West Virginia (Archer)

Phytophthora paeoniae Cooper & Porter, blight.

Indiana - (Cooper & Porter, 4)

+*Verticillium* sp., wilt.

Reported from New York (Massey) and District of Columbia (Martin)

Lemoine's disease, undetermined.

+Wisconsin - Felix Crousse very susceptible; Kenosha, September 15. (Vaughan)

See Bibl. S., G. R. (19)

+Ring spot, undetermined.

Michigan - resembles tobacco ring spot; found in a number of plantings in June and July. (Nelson)

PASSIFLORA SP., passionflower.

+*Gloeosporium* sp., anthracnose.

Florida - West Palm Beach, August. Determined by G. Hamilton Martin, Pl. Dis. Reporter 12: 113. 1928.

PELARGONIUM SP., geranium.

Bacterium pelargonii N. A. Brown, bacterial leaf spot.

New Jersey - scattered occurrence; Freehold, October 19. (White)

Pennsylvania - Pittsburgh. (Thurston)

Cladosporium sp., leaf spot.

District of Columbia - Washington, July; collected and determined by G. Hamilton Martin.

Pythium sp., stem rot.

*Ohio - caused considerable damage in commercial plantings; Doylestown, August 18. (Stover)

PETUNIA HYBRIDA, petunia.

+*Caecoma radialis* (Greef) Cobb, root knot.

Washington - Snohomish County. (Dept. Pl. Path.)

PHILADELPHUS SP., syringa, mockorange.

+*Caecoma radialis* (Greef) Cobb, root knot.

Maryland - Bell, November 24. Collected by A. J. Bruman, determined by N. A. Cobb.

Septoria philadelphia Ell. & Ev., leaf spot.

+*Montana - collected by P. A. Young, determined by G. Hamilton Martin.

PHLOX SPP., phlox.

Cercospora omphacodes Ell. & Holw., leaf spot.

+*West Virginia - Charleston, September 3. (Archer)

Tylenchus dipsaci (Kuehn) Bast., stem nematode.

+*Connecticut - New Haven, July 3. Collected by G. P. Clinton, determined by G. Steiner.

+Mosaic

New York - Steuben County, September 1. (Massey)

PITTOSPORUM SP., pittosporum

+*Cercospora* sp., leaf spot.

Georgia - in severe infections a marked yellowing and a subsequent dropping of leaves is produced; Thomasville, January. (Boyd)

POINSETTIA PULCHERRIMA, poinsettia.

Phymatotrichum omnivorum (Shear) Dug., root rot.

+Texas - Gollard and Hidalgo Counties. (Taubenhaus)

POLYSTICHUM ACROSTICHOIDES, Christmas fern.

Taphrina filicina Rostr.

+*Maine - York, June. Received from W. T. Councilman, determined by Freeman Weiss.

PRIMULA OBCONICA, top primrose.

+**Tylenchus dipsaci* (Kuehn) Bast.

Pennsylvania - Willow Grove, February 28. Collected by F. F. Smith, determined by N. A. Cobb, (Pl. Dis. Reporter 12: 11. 1928)

RHODODENDRON SPP., rhododendron.

+*Botrytis cinerea* Auct., tip blight.

New Jersey - Cumberland County, May 29. (White)

+*Cercospora rhododendri* March & Verpl., leaf spot.

New Jersey - Cumberland County, June 21. (White)

Gloeosporium sp., anthracnose.

+New York - September 10. (Massey)

+*Gloeosporium rhododendri* Berk. & Curt.

Maryland - (Waterman)

+*Pestalozzia macrostricha* Kleb., leaf spot.

New Jersey - Cumberland, June 21. (White)

+*Phytophthora cactorum* (Leb. & Cohn) Schroet., die-back.

New Jersey - Bergen County, June 15. (White)

ROSA SPP., rose.

Bacterium tumefaciens EFS. & Towns., crown gall.

Reported from Massachusetts, Pennsylvania, Mississippi, Texas, Iowa, +Kansas, Michigan, Wisconsin, Arizona, +Utah.

Botrytis sp., cinerea type, bud blight.

Reported from New York, Virginia, Mississippi, Texas, Washington.

Cylindrocyladium scoparium Morgan, crown canker.

New York - local; heavy loss; on Supreme roses under glass;

Suffolk County. (Massey)

Diaporthe umbrina Jenkins, brown canker.

Reported from Rhode Island, New York, New Jersey, Pennsylvania, Delaware, District of Columbia, Maryland, Virginia, Florida, Mississippi, +Arkansas.

Diplocarpon rosae Wolf, black spot.

Reported from Massachusetts, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, District of Columbia, Maryland, Virginia, West Virginia, North Carolina, Florida, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas, Ohio, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Montana, Washington, Oregon.

Gloeosporium rosae Hals., twig blight.

Reported from Pennsylvania +Florida, Mississippi, Texas.

+**Hyaloceras depazeoides* (Oth.) Berner.

Kansas - (Martin)

Leptosphaeria coniothyrium (Fckl.) Sacc., cane blight.

Reported from +Rhode Island, New Jersey, Pennsylvania, Maryland, District of Columbia, Virginia, West Virginia, Mississippi, Texas, Indiana, Minnesota.

+**Myxosporium rosae* Fckl.

*Connecticut - Washington. Received August 1927. (Martin)

Sphaerotheca pannosa (Wallr.) Lev., powdery mildew.

Reported from Massachusetts, +Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, District of Columbia, Maryland, Virginia, West Virginia, Tennessee, North Carolina, Florida, Mississippi, Louisiana, Texas, Arkansas, Ohio, Michigan, Wisconsin, Iowa, Missouri, Kansas, Colorado, New Mexico, Arizona, Utah, Washington, Oregon.

Tubercularia sp.

+*New York - on foliage; Bronx Park, September. Collected by B. O. Dodge, determined by Anna E. Jenkins.

+*Florida - on foliage; Oneco, September 13. Collected and determined by Anna E. Jenkins. Pl. Dis. Reporter 12: 126. 1928.

P.r.: -on stems, West Virginia.

Chlorosis - undetermined.

A report on this disease has been published by R. P. White, New Jersey Experiment Station (Pl. Dis. Reporter 12: 33-34. 1928).

It has also been reported from Massachusetts (White), Pennsylvania (McCubbin) and West Virginia (Archer).

RUDBECKIA LACINIATA, golden glow.

Erysiphe cichoracearum DC., powdery mildew.

+New Jersey - local; Middlesex County, September 11. (White)

+*Montana - Yellowstone County, July 28. (Young)

SALVIA SPP., sage.

+*Aphelenchus* sp., leaf spot.

Delaware - Wilmington, October 7. (Adams)

+*Sphaeropsis salviae* Hollos.

Mississippi - Brookhaven, July 30. (Martin, Pl. Dis. Reporter 12: 81. 1928).

SEDUM TELEPHIUM, live forever.

+*Pleospora* sp., leaf spot.

*New York - New York City, September 18. (A. Fenner)

SPIRAEA SP., spiraea.

+Leptothyrium vulgare (Fr.) Sacc.

*West Virginia - Charleston, September 4. (Archer)

SYMPHORICARPOS SP., snowberry.

+Cladosporium sp.

Maryland and Virginia - (Martin)

+Glomerella cingulata (Ston.) Spauld. & Schrenk., anthracnose.

Massachusetts - general. (Davis)

Maryland - Rockville, November 6. (Martin)

Virginia - Falls Church, September 21. (Martin)

See Bibl. Davis (5)

+Sphaceloma symphoricarpi Barrus & Horsfall, anthracnose.

New York - scattered; Ithaca, June 1. (Horsfall)

*Maryland - Grantsville, August 25, 1927. Collected and determined by Anna E. Jenkins.

SYRINGA VULGARIS, lilac.

Bacterium syringae C. O. Smith, blight.

+Maine - Castine, August 15. (Polsom), (Bryan, Pl. Dis. Reporter 12: 99. 1928).

+New Jersey - general; Summit, June 5. (White)

+Washington - King, Kitsap, Pacific, and Pierce Counties, April 10. (Dept. Pl. Path.)

See Bibl. Bryan (2)

Botrytis cinerea Auct., blossom blight.

+Massachusetts - (Waterman)

+New York - Genesee, July 21. (Massey)

+Caconema radicicola (Greef) Cobb, root knot.

*Maryland - on S. dilatata; Bell, November 22. Collected by Bruman and Sanford, determined by N. A. Cobb.

+Phymatotrichum omnivorum (Shear) Dug., root rot.

Texas - (Taubenhaus and Dana)

TAMARIX SP., tamarix.

+Phymatotrichum omnivorum (Shear) Dug., root rot.

Texas - very common in nurseries. (Taubenhaus and Dana)

TELANTHERA BETTZICKIANA, garden alternanthera.

+Fusarium sp., elegans sect., wilt.

New Jersey - local; Essex County, January 30. (White)

TULIPA SP., tulip.

Botrytis tulipae (Lib.) E. F. Hopkins, botrytis blight.

Reported from Massachusetts, +Connecticut, New York, New Jersey, Delaware, Virginia, Michigan, Wisconsin, +North Dakota, Washington, Oregon.

Penicillium sp., rot.

Oregon - general. (Brierley)

+Sclerotium rolfsii Sacc., stem rot.

*Georgia - Atlanta, July. (Weiss)

Mosaic - undetermined.

+New York - not prevalent or serious; some "breaking" of the flowers noted; Yonkers, May 24. (Guterman)

+Oregon - general; Corvallis, March 2. (Brierley)

VIBURNUM SPP., viburnum.

+Cladosporium sp.

*Mississippi - Columbia, November. (Martin)

+Coniothyrium sp., leaf spot.

*New York - Dutchess County. (Welch)

D I S E A S E S O F M I S C E L L A N E O U S H O S T S

AMBROSIA ELATIOR

Aster yellows, +*District of Columbia (Ludwig, Pl. Dis. Reporter 12: 30. 1928)

BRASSICA NAPUS

+Plasmodiophora brassicae Wor., club root. New Jersey.

CHAMAECRISTA NICTITANS

+Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

CIRSIIUM ARVENSE

Sclerotinia sclerotiorum (Lib.) Massee, drop. +*Montana.

CROTALARIA SPP.

+Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

ELEPHANTOPUS SP.

Coleosporium elephantopidis (Schw.) Thuem., rust. +*Georgia.

HUMULUS LUPULUS

Plasmopara humuli Miyabe & Tak., downy mildew. +New York.

LAVATERA SP.

+Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

PHYTOLACCA SP.

+Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

Mosaic, undetermined. +Delaware.

RIBES ODORATUM

+Pseudopeziza ribis Kleb., leaf spot. *Montana.

SESBANIA SP.

+Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

SHEPHERDIA ARGENTEA

+Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

SOLANUM CAROLINENSE

+Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

+Verticillium albo-atrum Reinke & Berth., wilt. New Jersey.

TRAGIA SP.

+Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

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